REMARKS

Applicants have thoroughly considered the Office action and have amended the application to more clearly set forth the invention. The specification has been amended to correct minor typographical errors. Claims 1-50 are presented in the application for further examination. Claims 1-6, 9-21, 23-25, 27-29, 34, 35, 37, 43, 47, 49, and 50 have been amended by this Amendment A. Reconsideration of the application as amended and in view of the following remarks is respectfully requested.

Claim Rejections under 35 U.S.C. § 102 (e)

Claims 1-50 were rejected under 35 U.S.C. § 102(e) as being anticipated by Urade et al., U.S. Patent No. 6,272,644 ("Urade patent"). The Office action cites various portions of the Urade patent as support for rejecting the claims. Applicants respectfully disagree with the Examiner's interpretation of the Urade patent and understanding of the present invention, and argue that the Urade patent fails to anticipate each and every element of the present invention. Among other things, the cited art fails to anticipate *selectively suspending* one or more devices connecting to, for example, a port of a USB hub *independently* of other devices connecting to other ports of the USB hub.

Amended claim 1 recites:

a) "sending an idle request";

b) "waiting . . . to receive a call . . . to a *callback* function"; and

c) "executing the callback function to *selectively suspend* the at least one of the first devices that sent the idle request *independently* of the other first devices."

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On the other hand, the Urade patent merely discloses a system and method "which allow

an [sic] non-USB microcontroller controlled device to interface with a USB hub and to enable

resume signals from the microcontroller to cancel the suspend mode of both the host computer

and the hub" (Urade, col. 2, lines 19-23). For example, when a host computer sends a suspend

request to the USB hub, the USB hub passes this request to the microcontroller (of a non-USB

device) and tells the microcontroller to suspend. The microcontroller responds to the suspend

request by instructing the USB hub to suspend itself by suspending its clock using a stop clock

signal. The microcontroller then enters the powersave mode (e.g., suspended state). If the

microcontroller needs to be turned on, the microcontroller sends a resume request to the USB

hub using a resume signal. The USB hub next releases or de-asserts the suspend signal and is

awakened. In response, the microcontroller releases the stop clock signal and is awakened

(Urade, col. 5, line 61 to col. 6, line 17; see also FIG. 6). In other words, Urade teaches all

devices on a USB hub together, rather than selectively.

Moreover, the Urade patent teaches away from the present invention. For instance, the

present invention does not suspend the USB hub itself unless all devices connecting to the USB

hub are ready to be suspended. The present invention involves independently or selectively

suspending one or more root hub ports, one or more USB devices (e.g., USB device 98), or a

composite device which connects to the bus (e.g., USB) (Application, paragraphs [0025]-

[0027]). Furthermore, the present invention discloses benefits such as independently suspending

one or more devices connecting to a USB hub, while maintaining other devices connecting to the

same USB hub in active, idle, or suspended state. Other benefits include independently

suspending one or more ports of the USB hub while maintaining remaining ports of the USB hub

functional. The Urade patent, however, by suspending the USB hub itself, does not allow for

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selectively suspending devices, such as ports of the USB hub, USB devices, etc. In other words, all devices must be suspended together.

Applicants also disagree that the callback function of the present invention is taught by the embedded function 45 in FIG. 4 of the Urade patent (Office action, p. 2). The Urade patent discloses that "the USB hub includes and [sic] embedded function (45)" and the embedded function "could be any type of function implemented by the device (3) described above in relation to FIG. 1, such as a mouse, keyboard, etc. . . . The signal from the embedded function (45) intended to *'wake up'* the host computer is the ***resume signal***." (Urade, col. 5, lines 11-12; lines 16-18) (emphasis added). Urade uses the signals from the embedded function to "wake up" the host computer.

The present application describes the callback function as "the actual function within the USB class driver that ***will submit the request to put the USB device 98 into low power mode*** when called to do so" (Application, paragraph [0027]) (emphasis added). The "callback function" of the present invention causes, for example, a USB device to enter a suspended state or low power mode. In this regard, claim 1 recites selectively suspending the devices rather than waking up a host computer. For these reasons, Applicants submit that the Urade patent fails to anticipate the callback function.

Therefore, for at least the above reasons, claim 1 is believed to be allowable and the rejection under 35 U.S.C. § 102(e) should be withdrawn. Claims 1-24 depend from claim 1 and are believed to be allowable for at least the same reasons as claim 1.

Inasmuch as claim 25 recites ***"selectively suspending***, by the controller in response to the received idle request, the device and any child devices thereof only after an idle request has been received from the device and each of the child devices thereof such that the device and any child

devices thereof are suspended *independently* of the other devices in the tree", Applicants submit this claim is also patentable over the Urade reference. In addition, claims 26-33 depend from claim 25 and are believed to be likewise allowable.

Independent claim 34 recites a computer-readable medium having, among other things, "a driver component for waiting to receive, by the child device, a call from the controller to a *callback function* associated with the child device to *selectively suspend* the child device in response to execution of said callback function by the child device that sent the idle request *independently* of the other child devices." As such, claim 34 distinguishes over the cited art. Dependent claims 35-42 are believed to be allowable for at least the same reasons as claim 34 from which they depend.

Claim 43 sets forth "a controller component for *selectively suspending*, by the controller in response to the received idle request, the device and any child devices thereof *only after* an idle request has been received from the device and each of the child devices thereof such that the device and any child devices thereof are suspended *independently* of the other devices in the tree." Therefore, claim 43 is also allowable over the cited art. Claims 44-47 depend from claim 43 and are allowable for at least the same reasons as claim 43.

Independent claim 48 recites yet another computer-readable medium embodying aspects of the invention. In this instance, a first field stores "a routine attribute representing a callback function" and a second field stores "a context attribute representing a callback context." As claimed, the callback context executes to suspend a device. The Urade patent is entirely silent as to either a routine attribute or context attribute as set forth in claim 48. For this reason, claim 48 is in condition for allowance. Claims 49 and 50 depend from claim 48 and are believed to be allowable for at least the same reasons as claim 48.

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Conclusion

It is felt that a full and complete response has been made to the Office action and, as such, places the application in condition for allowance. Such allowance is hereby respectfully requested. If the Examiner feels, for any reason, that a personal interview will expedite the prosecution of this application, he is invited to telephone the undersigned.

Applicant does not believe that a fee is due. If, however, the Commissioner determines otherwise, such fees may be charged during the entire pendency of this application to Deposit Account No. 19-1345.

<div style="text-align:center">Respectfully submitted,</div>

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